

ABSTRACT OF THE DISCLOSURE

A serial transmission path switching system includes a matrix switch section for switching $N \times M$ lines at a fixed rate. An optical receiving section is connected to receive an optical signal from an optical transmission path, photoelectrically convert it, and supply it to the matrix switch section. An optical transmitting section is connected to convert an output from the matrix switch section into an optical signal and send it to an optical transmission path. An input buffer is connected to the terminal of the optical transmission path connected to the optical receiving section to equalize the input signal from an input-side communication device, convert the signal into an optical signal, and send it to the optical transmission path. An output buffer is connected to the terminal of the optical transmission path connected to the optical transmitting section to convert an optical signal from the optical transmitting section into an electrical signal, equalize it, and output it to an output-side communication device.